# 3D FOOD PRINTING FOR BEGINNERS

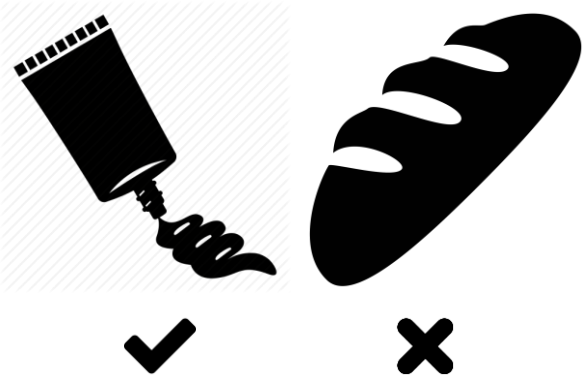
Preparing food for 3D Printing can be easier than you think! Great printing results can be easily achieved with the products that are available in every supermarket, without any further preparations.

In general, there are 3 basic requirements for food to be printable.

## 3 General Principles for preparing a paste for 3D Food Printing

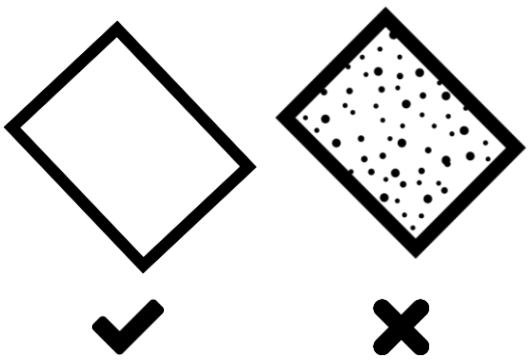
1. A **PASTE**

   The ingredients need to be processed into a **paste-like substance** that is **extrudable**. Hard substances such as bread, solid meat or unprocessed vegetables are not printable.



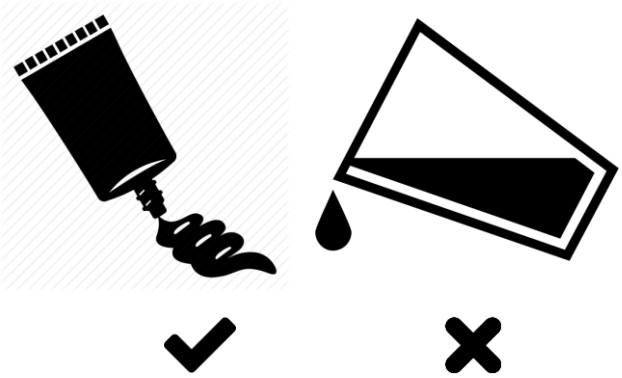
2. THE **SMOOTH** PASTE

   The paste needs to be very **smooth**, because it is extruded via ~1mm nozzle, so any particles bigger than that will block the nozzle.



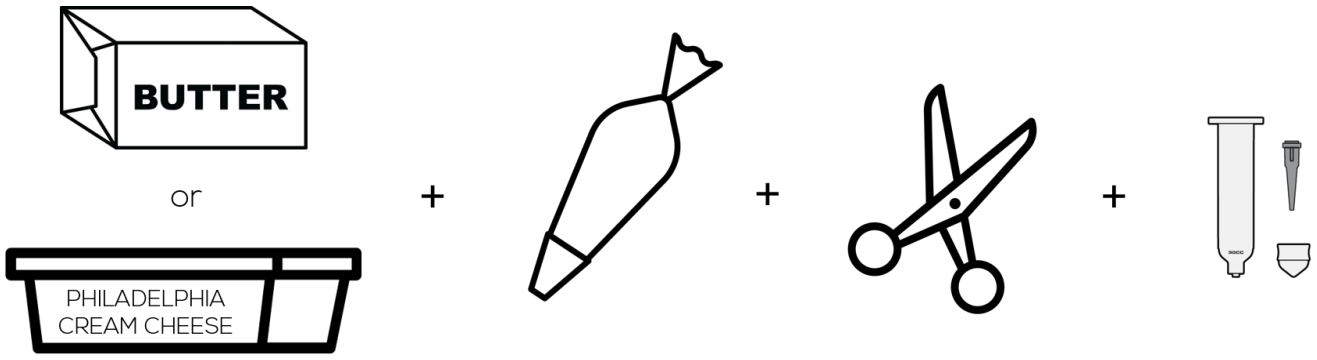
3. THE SMOOTH PASTE OF A CERTAIN **THICKNESS**

   The paste needs to have certain **thickness** in order to **keep its shape** after printing. Water or juice cannot be used, as the shape will immediately flow out after the printing.



## How to start

To start the 3D Food Printing  experience , we advise you to use the basic ingredients: Butter or Philadelphia Cream Cheese (~200g), and a medium-size piping bag. All you need to do is to transfer it to a cartridge and you are ready to print! Here are the details, step by step:




1. If you use butter, make sure it's soft. Therefore, let it warm up outside of the fridge for about an hour to make it easily deformable. Philadelphia cheese doesn't need to be warmed, because it's always easily smearable.
2. Transfer the food to a piping bag.

3. Cut the tip of the piping bag, about 2-3cm from the corner, to get a hole a bit smaller than the diameter of the cartridge.
4. Insert the piping bag into a cartridge and fill the cross-section of the cartridge with the paste. Then squeeze the piping bag to load the cartridge with food until 1-2cm from top. Make sure that no air bubbles are inside, to avoid the undesirable result of printing air.
5. Press in the red cap until the top surface of the cartridge is flat.
6. Twist in the correct nozzle. Each colour of the nozzle represents different size. The standard one is grey – 1.2mm diameter.
7. Congratulations! You are ready to print. Now follow the Quick Start Guide to make your first unique creations.